Index

AIIE TRANSACTIONS

Volume 12 1980

0100 ***Costs***

0102 Cost Controls

"Selecting Cost-Optimal Main-Effect Fractions of 3^n Factorials," Clark A. Mount-Campbell, John B. Neuhardt; March 1980, page 80.

"A Model for Sensitivity Analysis of Reimbursement in Hospitals," Vinod K. Sahney, Timothy Weddle; June 1980, page 133.

0200 ***Employee relations***

0300 ***Engineering economics***

0400 ***Facilities planning, design***

0402 Facility location

"Interactive Computer Graphical Solutions of Constrained Minimax Location Problems," Stephen D. Brady, Richard E. Rosenthal; September 1980, page 241.

"A Maximin Location Problem with Maximum Distance Constraints," Z. Drezner, G. O. Wesolowsky; September 1980, page 249.

0404 Plant design construction

"Preparing Functional Specifications for Computer Based Industrial Control Systems," William M. Marcy; December 1980, page 282.

0405 Plant layout analysis

"Internal Layout Design of a Warehouse," Yoseph Bassan, Yaakov Roll, Meir J. Rosenblatt; December 1980, page 317.

"The Optimal Sight Angle," Z. Drezner, G. O. Wesolowsky; December 1980, page 332.

0407 Plant layout evaluation/testing procedures

"Flexible Facilities Design," Richard H. Shore, James A. Thompkins; June 1980, page 200.

0500 ***Functional operations***

0503 Computer operation, software

"Digital Logic and Arithmetic: Background for Interfacing Microcomputers," Roger W. Berger, March 1980, page 3.

"Digital Electronics for Microprocessor Applications in Control of Manufacturing Processes," William M. Marcy; March 1980, page 15.

"Interfacing Microcomputers for Control and Data Acquisition," Jerry L. Goodrich; June 1980, page 106.

"Data Input/Output Using A Microprocessor System," Philip M. Wolfe, Houston B. Mount; June 1980, page 114

"Flexible Facilities Design," Richard H. Shore, James A. Thompkins; June 1980, page 200

"A Microprocessor-based Traffic Light Simulator," Roger W. Berger, September 1980, page 210.

0600 ***Human engineering***

0603 Ergonomics

"Effective Utilization of Industrial Robots–A Job and Skills Analysis Approach," Shimon Y. Nof, James L. Knight, Jr., Gavriel Salvendy; September 1980, page 216.

0604 Learning

"The Influence of Job Related Variables on the Predictability of Three Learning Curve Models," Shlomo Globerson; March 1980, page 64.

0700 ***Incentive plans***

0800 ***Industrial engineering***

0805 IE's, IE technologists

"Operation Research Methodologies in Industrial Engi-

neering: A Survey," Robert E. Shannon, S. Scott Long, Billy P. Buckles; December 1980, page 364.

0903 *Industries*

0903 Health care and other services

"A Model for Sensitivity Analysis of Reimbursement in Hospitals," Vinod K. Sahney, Timothy Weddle; June 1980, page 133.

0904 Manufacturing

"Machining Parameter Optimization with Lot Size Considerations," Richard A. Wysk, Robert P. Davis, Jose M.A. Tanchoco; March 1980, page 59

"Artificial Intelligence in Manufacturing and Control," William I. Bullers, Shimon Y. Nof, Andrew B. Whinston; December 1980, page 351.

0906 Others

"Optimal Location of Coal Blending Plants by Mixed-Integer Programming," A. Ravindran, Derwood L. Hanline; June 1980, page 179.

"A Regional Pulp and Paper Process Optimization Model for Energy Analysis and Its Application for R&D Decision Making," David A. Pilati, F. T. Sparrow, Jason Chang, Richard A. Rosen; June 1980, page 186.

1000 *Management*

1003 Decision making

"Coordination Strategies for Production and Marketing in a Functionally Decentralized Firm," James R. Freeland; June 1980, page 126.

"A Model for Sensitivity Analysis of Reimbursement in Hospitals," Vinod K. Sahney, Timothy Weddle; June 1980, page 133.

"Control and Decision Support in Automatic Manufacturing Systems," Shimon Y. Nof, Andrew B. Whinston, William I. Bullers; June 1980, page 156.

"A Regional Pulp and Paper Process Optimization Model for Energy Analysis and Its Application for R&D Decision Making," David A. Pilati, F. T. Sparrow, Jason Chang, Richard A. Rosen; June 1980, page 186.

1007 Project management

"A GERTS-Based Interactive Computer System for Analyzing Project Networks Incorporating Improvement Curve Concepts," P. M. Wolfe, E. B. Cochran, W. J. Thompson; March 1980, page 70.

1100 *Material handling*

1103 Costs

"Internal Layout Design of a Warehouse," Yoseph Bassan, Yaakov Roll, Meir J. Rosenblatt; December 1980, page 317.

1105 Dispatching, scheduling

"Determination of Server Utilization in a General Two Stage Cyclic Queue," A. K. Chugha, M.J.M. Posner; December 1980, page 323.

1107 Methods and systems design

"Flexible Facilities Design," Richard H. Shore, James A. Thompkins; June 1980, page 200.

"On the Production Capacity of Automatic Transfer Lines with Unlimited Buffer Space," J. G. Shanthikumar; September 1980, page 273.

"Models for Understanding Flexible Manufacturing Systems," J. A. Buzacott, J. G. Shanthikumar; December 1980, page 339.

1111 Storage, warehousing

"Internal Layout Design of a Warehouse," Yoseph Bassan, Yaakov Roll, Meir J. Rosenblatt; December 1980, page 317.

1200 *Methods engineering*

1201 Automation, mechanization

"Effective Utilization of Industrial Robots—A Job and Skills Analysis Approach," Shimon Y. Nof, James L. Knight, Jr., Gavriel Salvendy; September 1980, page 216.

"Artificial Intelligence in Manufacturing and Control," William I. Bullers, Shimon Y. Nof, Andrew B. Whinston; December 1980, page 351.

1202 Computer control

"Control and Decision Support in Automatic Manufacturing Systems," Shimon Y. Nof, Andrew B. Whinston, William I. Bullers; June 1980, page 156.

"A Microprocessor-based Traffic Light Simulator," Roger W. Berger; September 1980, page 210.

"Preparing Functional Specifications for Computer Based Industrial Control Systems," William M. Marcy; December 1980, page 282.

"Models for Understanding Flexible Manufacturing Systems," J. A. Buzacott, J. G. Shanthikumar; December 1980, page 339.

1206 Materials conservation

"Machining Parameter Optimization with Lot Size Considerations," Richard A. Wysk, Robert P. Davis, Jose M. A. Tanchoco; March 1980, page 59.

1210 Research

"A Regional Pulp and Paper Process Optimization Model for Energy Analysis and Its Application for R&D Decision Making," David A. Pilati, F. T. Sparrow, Jason Chang, Richard A. Rosen; June 1980, page 186.

1213 Work design, methods improvement

"Effective Utilization of Industrial Robots—A Job and Skills Analysis Approach," Shimon Y. Nof, James L. Knight, Jr., Gavriel Salvendy; September 1980, page 216.

1300 *Quantitative methods*

"Interactive Computer Graphical Solutions of Constrained Minimax Location Problems," Stephen D. Brady, Richard E. Rosenthal; September 1980, page 241.

"A Maximin Location Problem with Maximum Distance Constraints," Z. Drezner, G. O. Wesolowsky; September 1980, page 249.

"Modeling and Forecasting Time Series Using Transfer Function and Intervention Methods," Douglas C. Montgomery, Ginner Weatherby; December 1980, page 289.

"Determination of Server Utilization in a General Two Stage Cyclic Queue," A. K. Chugha, M.J.M. Posner; December 1980, page 323.

"The Optimal Sight Angle," Z. Drezner, G. O. Wesolowsky; December 1980, page 332.

"Operation Research Methodologies in Industrial Engineering: A Survey," Robert E. Shannon, S. Scott Long, Billy P. Buckles; December 1980, page 364.

1301 Mathematical models

"The Influence of Job Related Variables on the Predictability of Three Learning Curve Models," Shlomo Globerson; March 1980, page 64.

"Selecting Cost-Optimal Main-Effect Fractions of 3^n Factorials," Clark A. Mount-Campbell, John B. Neuhardt; March 1980, page 80.

"Coordination Strategies for Production and Marketing in a Functionally Decentralized Firm," James R. Freeland; June 1980, page 126.

"Methods for Checking the Consistency of Precedence Constraints," Per A. Smeds; June 1980, page 170.

"Optimal Aggregate Production Strategies for Plants with Semifixed Operating Costs," Sam G. Taylor; September 1980, page 253.

"Scheduling in a Semi-Ordered Flow-Shop Without Intermediate Queues," R. K. Arora, S. P. Rana; September 1980, page 263.

1302 Networks

"Priority Loss Systems–Unequal Holding Times," Martin J. Fischer; March 1980, page 47.

"Optimal Location of Coal Blending Plants by Mixed-Integer Programming," A. Ravindran, Derwood L. Hanline; June 1980, page 179.

1303 Programming: linear, nonlinear

"Optimal Location of Coal Blending Plants by Mixed-Integer Programming," A. Ravindran, Derwood L. Hanline; June 1980, page 179.

"Surrogated Linear Programming Can't Work," R. S. Garfinkel; June 1980, page 206.

1305 Simulation/games

"Design and Implementation of a Production Planning System in a Rolling Mill: A Case Study," Ludo F. Felders, Frank V. Van Steelandt; March 1980, page 54.

"Global Analysis of a Multi-Product, Multi-Line Production System Using Q-Gert Modeling and Simulation," Bernard W. Taylor, III, Laurence J. Moore, R. D. Hammesfahr; June 1980, page 145.

"A Regional Pulp and Paper Process Optimization Model for Energy Analysis and Its Application for R&D Decision Making," David A. Pilati, F. T. Sparrow, Jason Chang, Richard A. Rosen; June 1980, page 186.

"The Multi-Product Production Cycling Problem Stephen C. Graves; September 1980, page 233.

1306 Applied Probability

"Priority Loss Systems–Unequal Holding Times," Martin J. Fischer; March 1980, page 47.

"Knapsack-Based Approaches to the Makespan Problem on Multiple Processors," S. E. Elmaghraby, A. A. Elimam; March 1980, page 87.

"An Ad Hoc Method of Forecasting Series with Zero Values," Arnold L. Sweet; March 1980, page 97.

"Normal Approximation to Linear Combinations of Independently Distributed Random Variables," James Hool, Safed Maghsoodloo; June 1980, page 140.

"Uptime of Systems Subject to Repairable and Nonrepairable Failures," John L. Bryant, Richard A. Murphy; September 1980, page 226.

"The Computation of Multi-Stage Attribute Sampling Plans," A. Dale Flowers; December 1980, page 308.

1307 Experimental Design

"Contemporary Approaches to Paced Visual Inspection," Dev S. Kochhar, Suresh C. Jaisingh; March 1980, page 38.

1400 *Production and inventory control*

"The Multi-Product Production Cycling Problem" Stephen C. Graves; September 1980, page 233.

"Optimal Aggregate Production Strategies for Plants with Semifixed Operating Costs," Sam G. Taylor; September 1980, page 253.

"Models for Understanding Flexible Manufacturing Systems," J. A. Buzacott, J. G. Shanthikumar; December 1980, page 339.

1401 Distribution systems

"On the Production Capacity of Automatic Transfer Lines with Unlimited Buffer Space," J. G. Shanthikumar; September 1980, page 273.

1402 Forecasting

"An Ad Hoc Method of Forecasting Series with Zero Values," Arnold L. Sweet; March 1980, page 97.

"Coordination Strategies for Production and Marketing in a Functionally Decentralized Firm," James R. Freeland; June 1980, page 126.

"Modeling and Forecasting Time Series Using Transfer Function and Intervention Methods," Douglas C. Montgomery, Ginner Weatherby; December 1980, page 289.

1405 Production control

"Control and Decision Support in Automatic Manufacturing Systems," Shimon Y. Nof, Andrew B. Whinston, William I. Bullers; June 1980, page 156.

"Uptime of Systems Subject to Repairable and Nonrepairable Failures," John L. Bryant, Richard A. Murphy; September 1980, page 226.

"Artificial Intelligence in Manufacturing and Control," William I. Bullers, Shimon Y. Nof, Andrew B. Whinston; December 1980, page 351.

1406 Production planning

"Design and Implementation of a Production Planning System in a Rolling Mill: A Case Study," Ludo F. Gelders, Frank V. Van Steelandt; March 1980, page 54.

"A GERTS-Based Interactive Computer System for Analyzing Project Networks Incorporating Improvement Curve Concepts," P. M. Wolfe, E. B. Cochran, W. J. Thompson; March 1980, page 70

"Global Analysis of a Multi-Product, Multi-Line Production System Using Q-Gert Modeling and Simulation," Bernard W. Taylor, III, Laurence J. Moore, R. D. Hammesfahr; June 1980, page 145.

1407 Production Scheduling

"Knapsack-Based Approaches to the Makespan Problem on Multiple Processors," S. E. Elmaghraby, A. A. Elimam; March 1980, page 87.

"Two Single Machine Sequencing Problems Involving Controllable Job Processing Times," R. G. Vickson; September 1980, page 258.

"Scheudling in a Semi-Ordered Flow-Shop Without Intermediate Queues," R. K. Arora, S. P. Rana; September 1980, page 263.

1500 *Quality Control*

1501 Inspection

"Contemporary Approaches to Paced Visual Inspection," Dev S. Kochhar, Suresh C. Jaisingh; March 1980, page 38.

1504 Sampling

"The Computation of Multi-Stage Attribute Sampling Plans," A. Dale Flowers; December 1980, page 308.

1600 *Work measurement*

1610 Work sampling

"Selection of Work Sampling Observations Times: Part I–Stratified Sampling," Joseph J. Moder; March 1980, page 23.

"Selection of Work Sampling Observations Times: Part II–Restricted Random Sampling," Joseph J. Moder, Henry D. Kahn; March 1980, page 32.

1700 *Data processing systems design*

"Interfacing Microcomputers for Control and Data Acquisition," Jerry L. Goodrich; June 1980, page 106.

"Data Input/output Using A Microprocessor System," Philip M. Wolfe, Houston B. Mount; June 1980, page 114.

"A Microprocessor-based Traffic Light Simulator," Roger W. Berger; September 1980, page 210.

"Preparing Functional Specifications for Computer Based Industrial Control Systems," William M. Marcy; December 1980, page 282.

1701 Digital computers

"Digital Logic and Arithmetic: Background for Interfacing Microcomputers," Roger W. Berger: March 1980, page 3.

"Digital Electronics for Microprocessor Applications in Control of Manufacturing Processes," William M. Marcy; March 1980, page 15.

1703 Analysis techniques

"Interactive Computer Graphical Solutions of Constrained Minimax Location Problems," Stephen D. Brady, Richard E. Rosenthal; September 1980, page 241.

"A Maximin Location Problem with Maximum Distance Constraints," Z. Drezner, G. O. Wesolowsky; September 1980, page 249.